Docket 80428DAN
Customer No. 01333

Patricia Lewis # 12

10-22-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	Group Art Unit: 2768
Walter C. Slater, et al	Examiner: Francis John Bartuska
PHOTOFINISHING SYSTEM AND METHOD INCORPORATING DIGITAL TECHNOLOGY	I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, Before the Board of Patent Appeals and Interferences, Washington, D.C. 20231.
Serial No. US 09/494,011	*Lisa De Munck*
Filed 28 January 2000	Lisa De Munck
	September 16, 2002
	Date

Commissioner for Patents
Box AF
Washington, D.C. 20231

Sir:

APPEAL BRIEF TRANSMITTAL

Enclosed herewith in triplicate is Appellants' Appeal Brief for the above-identified application.

The Commissioner is hereby authorized to charge the Appeal Brief filing fee to Eastman Kodak Company Deposit Account 05-0225. A duplicate copy of this letter is enclosed.

Respectfully submitted,

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Walter C. Slater, et al

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GROUP 3600

APPEAL BRIEF PURSUANT TO 37 C.F.R. 1.192

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APPELLANT'S BRIEF ON APPEAL

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the Examiner's Final Rejection of claims 1-33, 38 and 40 which was contained in the Office Action mailed April 17, 2002, as well as the Advisory Action mailed July 3, 2002.

A timely Notice of Appeal was filed July 16, 2002.

Real Party In Interest

Eastman Kodak Company is the real party in interest.

Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

Status Of The Claims

Appendix I provides a clean, double spaced copy of the claims on appeal.

Status Of Amendments

The Amendment After Final filed on June 17, 2002, has been entered by the Examiner. A second Amendment After Final filed with the present Appeal Brief has not yet been officially entered.

Summary Of The Invention

The present invention relates to a photofinishing system and method which incorporates digital technology to manage workflow in a photofinishing lab or network. In the system and method of the present invention, images which are received at a lab are converted to a common digital format. This reduces the need for physical batching by permitting work to be performed at the lab in an order which is most efficient from the stand point of an output device 29, and permits the lab to efficiently handle workflow which may include a variety of image inputs and consumer/retail options. In the system and method of the present invention, the photofinishing lab has a plurality of image obtaining devices 25 (Fig. 3) that

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obtains a plurality of digital images from multiple customer orders. The plurality of digital output devices 29 (Fig. 3) provides a plurality of digital image products. A central processing unit (CPU) 27 is operated to analyze each of the obtained digital images and compare the analyzed obtained digital images with reference digital image data representative of an optimum image. The CPU 27 is further able to create batches of digital images from the multiple customer orders, with the images in each batch having similar identification data, such that a batch of images may include images from different customer orders. The CPU 27 is further able to determine an output sequence of each of the obtained digital images to an output device based on at least the identification data.

Issues For Review By The Board

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Whether the rejection of claims 15-28, 29-32 and 33-37 under 35 USC 112, first paragraph is proper;

2. Whether claims 38 and 40 are unpatentable under 35 USC 102(e) as being anticipated by Shiota et al.

3. Whether claims 1-33 are unpatentable under 35 USC 103(a) over the references to Shiota et. al. in view of Kristy.

Grouping Of Claims

Claims 1, 2 and 4-14 have been grouped together in a first group. Claim 3 forms a second group and does not stand or fall with the claims of the first group. Claims 15-28 form a third group and do not stand or fall with the claims of any of the first or second groups. Claims 29-32 form a fourth group and do not stand or fall with any of the claims of the first, second or third groups. Claim 33 forms a fifth group and does not stand or fall with any of the claims of the first through fourth groups. Claim 38 forms a sixth group and does not stand or fall with any of the claims of the first through fifth groups. Claim 40 forms a seventh group and does not stand or fall with any of the claims of the first through sixth groups. The reasons for the groups as noted above will be set forth in the arguments below.

Arguments

The Rejection

The rejection of claims 15-28, 29-32 and 33-37 under 35 USC 112, first paragraph is improper.

This rejection is based on the inclusion of language with respect to the images being related to multiple customer orders. The rejection sets forth that the original specification does not provide support for this limitation. Reconsideration of this rejection in view of the following remarks is respectfully requested. As an example, it is noted that claim 15 requires that the central processing unit be adapted to create batches of digital images from multiple customer orders, such that a batch of digital images may include digital images from different customer orders. With respect to this feature of the invention, reference is first made to page 10 of the specification which refers to virtual batching as being based on the fact that physical batches are not required as in conventional photofinishing labs. Within the context of the present invention, the work on an order can be performed in a manner that is most efficient from the standpoint of the output device or based on other considerations of the lab.

On page 11 of the original specification a table is set forth indicating six orders. A traditional batch is illustrated in the fourth column of the order while the last column of the order refers to the virtual or digital batch. As indicated in the last column of the table, it is clear that virtual batch X can include images from orders 1 and 5, while virtual batch Y can includes images from orders 2, 3, 4 and 6. As further described on lines 15-20 of page 11 of the specification, orders 1 and 5 can be placed into a sequence as a virtual batch X representing a printing job and orders 2, 3, 4 and 6 can be sequenced in a virtual batch Y representing another printing job. Therefore, with the use of the present invention, the batches can be reduced from four in a traditional batch to two in a virtual batch.

Accordingly, it is believed that objected amendments to the claims find support in the original specification.

Therefore, claims 15-28, 29-32 and 33-37 are believed to be in compliance with the requirements of 35 USC 112, first paragraph.

The rejection of claims 38 and 40 under 35 USC 103(e) as being anticipated by Shiota et al. is improper.

With respect to claim 38, it is noted that this claim requires a processing unit that is adapted to create a virtual batch and is further adapted to analyze each

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of the obtained images for image correction based on at least reference image data. The reference to Shiota et al. is not believed to show or suggest the claimed processing unit having the features set forth in claim 38, including the concept of analyzing images for image correction based on at least reference image data in combination with creating a virtual batch based on at least a time necessary to complete image products so as to compile a sequence of completion of the output image products that permit efficient use of the output devices.

Claim 40 relates to a photofinishing method which comprises the steps of creating a virtual batch of received images based on at least a time necessary to complete the output image products at any of a plurality of output devices, and comparing the received images to reference image data representative of an optimum image to permit manipulation of the received images based on the reference image data. The reference to Shiota et al. does not show or suggest the concept of creating a virtual batch of images based on at least a time necessary to complete an output image product and further, comparing the images to reference image data representative of an optimum image to permit manipulation of the received images based on the reference image data.

Accordingly, the reference to Shiota et al. does not anticipate or make obvious the specific features required by claims 38 and 40.

The rejections of claims 1-33 under 35 USC 103(a) has being unpatentable over Shiota et al. in view of Kristy is improper.

First, with respect to claim 1, it is noted that this claim relates to a method of producing digital image products in a photofinishing lab. In the method of claim 1, each image is associated with identification data and the image and identification data are sent to a central processing unit. The central processing unit of claim 1 analyzes each of the obtained digital images and compares the analyzed obtained digital images with reference image data representative of an optimum image. The central processing unit further creates batches of digital images from multiple customer orders and determines an output sequence of each of the obtained digital images to the output device based on at least the associated identification data.

Therefore, the central processing unit of claim 1 is adapted to create batches of digital images from multiple customer orders, determine an output sequence of each of the obtained digital images to output devices based on at least the associated identification data and compare and analyze the digital images with reference digital image data representative of an optimum image. As noted on

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page 7, lines 1-2 of the Final Rejection mailed on April 17, 2002, the reference to Shiota et al. does not disclose the concept of "optimizing the images in a central processing unit". The reference to Kristy is not believed to correct the deficiencies of Shiota et al. with respect to the claimed invention. The reference to Kristy discloses a host computer associated with a terminal. In Kristy, the host computer is adapted to store high resolution image files for printing. However, the reference to Kristy is not concerned with determining an output sequence of digital images to output devices based on identification data and creating virtual batches of images. Further, neither Shiota et al. or Kristy show a central processing unit which has the combined features of creating virtual batches, analyzing images with respect to comparing the images to reference image data and determining an output sequence of the images to the output devices based on the identification data. Therefore, absent Applicants' disclosure, one having ordinary skill in the art would not have provided for the combined features of the central processing unit as required by claim 1.

Claims 2 and 4-14 depend from claim 1 and set forth further unique features of the present invention which are also not believed to be shown or suggested in the applied references.

Accordingly, claims 1 and 2-14 are believed to be patentable over Shiota et al. and Kristy, whether considered individually or in combination.

Claim 3 relates to a method of producing digital products in a photofinishing lab in which a central processing unit analyzes images with respect to comparing the images to digital data representative of optimum images; creates batches of images from multiple customer orders; determines an output sequence of each of the obtained digital images to output devices based on at least the associated identification data; and modifies the obtained digital image in accordance with product/service data and the output device to which the output digital image is to be sent. As sent forth above and further noted in the Final Rejection of April 17, 2002 (see page 7, lines 1-2 of the Final Rejection), the reference to Shiota et al. does not disclose the concept of optimizing images in a central processing unit. It is further noted that the references to Shiota et al. and Kristy, whether considered individually or in combination, do not show or suggest the combined features of the central processing unit as noted above, which is adapted to create virtual batches, determine output sequences of the images, and also modify the images in accordance with product/service data and the output device to which the digital image is to be sent. Furthermore, absent Applicants'

disclosure, one having ordinary skill in the art would not have combined the features of the system of Shiota et al. with the arrangement of Kristy which does not show or suggest that a CPU is to be used to analyze images with respect to creating batches of the images from multiple customer orders and modify the images in accordance with product/service data and the output device to which the image is to be sent.

Accordingly, the references to Shiota et al. and Kristy, whether considered individually or in combination, are not believed to anticipate or make obvious the features of claim 3.

Claim 15 relates to a photofinishing lab for producing digital products. Claims 15 sets forth a central processing unit which receives digital images and identification data and is adapted to analyze the obtained digital images and compare each of the obtained digital images with reference image data representative of an optimum image. The central processing unit of claim 15 is further adapted to create batches of digital images from multiple customer orders and to determine an optimum sequence of each of the obtained digital images to image output devices based on the at least the associated identification data.

The references to Shiota et al. and Kristy do not show or suggest a photofinishing lab for producing digital images which includes a central processing unit that is adapted to analyze images, compare the images with reference image data, create batches of images from multiple customer orders, and determine an output sequence of each of the obtained images to image output devices based on the at least associated identification data. As noted above, the reference to Shiota et al. does not disclose the concept of optimizing images in a central processing unit. Absent Applicants' disclosure, one of ordinary art would not have looked at the reference to Kristy, since the reference to Kristy is not believed to show or suggest the use of a central processing unit for creating batches for multiple customer orders and is further adapted to determine an output sequence of each of the images to image output devices based on associated identification data.

Claim 16 which depends from claim 15 sets forth additional unique features of the present invention which are also not believed to be shown or suggested in the applied references. More specifically, claim 16 requires that the central processing unit modify the obtained digital images in accordance with product/service data and the output device to which the obtained digital image is to be sent. Neither, Shiota et al. or Kristy show or suggest a central processing

unit which creates virtual batches, determines output sequences, and modifies the images in accordance with product/service data and an output device to which the obtained digital image is to be sent.

Claims 17-28 depend from claim 15 and set forth further unique features of the present invention which are also not believed to be shown or suggested in the applied references.

Accordingly, the references to Shiota et al. and Kristy, whether considered individually or in combination, are not believed to anticipate or make obvious the specific features of claims 15-28.

Claim 29 relates to a photofinishing method for managing workflow in a photofinishing lab. Claim 29 requires that the method for managing workflow in a photofinishing lab utilize a processing unit that analyzes images with reference image data representative of an optimum image, creates batches of images from multiple customer orders and determines an output sequence of each of the images to output devices based on at least the identification data. The reference to Shiota et al. does not show or suggest a processing unit having the features noted above. The reference to Kristy does not correct the deficiencies of Shiota et al. with respect to the claimed invention in that the reference to Kristy does not relate to the concept of creating batches of images for multiple customer orders, analyzing the images and determining an output sequence of each of the images based on at least identification data.

Claims 30-32 depend from claim 29 and set forth further unique features of the present invention which are also not believed to be shown or suggested in the applied references.

Accordingly, Shiota et al. and Kristy, whether considered individually or in combination, are not believed to anticipate or make obvious the features of claims 29-32.

Claim 33 relates to a computer program product which requires the step of sending images and identification data to a processing unit. The processing unit of claim 33 creates batches of digital images and determines an output sequence of each of the images to output devices. Claim 33 further requires that the image product of the output device be combined with a related original order using the associated identification data. A further feature of claim 33 is that the identification data be product/service data indicative of the type of image product for the image, such that the images are modified in accordance with the output device to which the image is to be sent. The references to Shiota et al. and Kristy

do not show or suggest a computer program product that includes a processing unit that creates batches of digital images, determines an output sequence of each of the images to output devices, and further requires that the image product from an output device be combined with a related original order using the associated identification data; where the associated identification data is product/service data indicative of the type of image product for the image, and the images are modified in accordance with the product/service data and the output device to which the image is to be sent.

Accordingly, claim 33 is also believed to be allowable over the references to Shiota et al. and Kristy.

Summary

In view of the forgoing comments, it is submitted that the inventions defined by each of claims 1-33, 38 and 40 are patentable over the applied references to Shiota et al. and Kristy, whether these references are considered individually or in combination.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims.

Respectfully submitted,
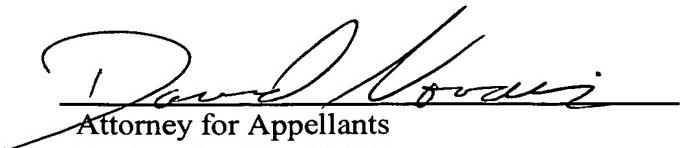
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Appendix I - Claims on Appeal

1. A method of producing digital image products in a photofinishing lab, the photofinishing lab having a plurality of image obtaining devices for obtaining a plurality of digital images from multiple customer orders, a plurality of digital output devices for providing a plurality of digital image products based on the obtained digital images, and a central processing unit, the method comprising the steps of:

associating each obtained digital image with identification data;

sending each of said obtained digital images and their associated identification data to the central processing unit, the central processing unit analyzing each of the obtained digital images and comparing said analyzed ·obtained digital images with reference digital image data representative of an optimum image, said central processing unit further creating batches of digital images from the multiple customer orders, the images in each batch having similar identification data, such that a batch of images may include images from different customer orders, said central processing unit further determining an output sequence of each of said obtained digital images to said output devices based on at least the associated identification data;

providing a digital image product based on the obtained digital image at said digital output device; and

combining the digital image product from the output devices with a related original order from said original orders using the associated identification data.

2. A method according to claim 1, comprising the further step of:

manipulating said analyzed obtained digital images based on said reference digital image data.

3. A method of producing digital image products in a photofinishing lab, the photofinishing lab having a plurality of image obtaining devices for obtaining a plurality of digital images from multiple customer orders, a plurality of digital output devices for providing a plurality of digital image products based on the obtained digital images, and a central processing unit, the method comprising the steps of:

associating each obtained digital image with identification data;

sending each of said obtained digital images and their associated identification data to the central processing unit, the central processing unit analyzing each of the obtained digital images and comparing said analyzed obtained digital images with reference digital image data representative of an optimum image, said central processing unit further creating batches of digital images from the multiple customer orders, the images in each batch having similar identification data, such that a batch of images may include images from different customer orders, said central processing unit further determining an output sequence of each of said obtained digital images to said output devices based on at least the associated identification data;

providing a digital image product based on the obtained digital

image at said digital output device; and

combining the digital image product from the output devices with a

related original order from said original orders using the associated identification

data;

wherein said identification data is product/service data indicative of

a type of digital image product for the digital output image, such that the central

processing unit modifies the obtained digital images in accordance with the

product/service data and the output device to which the obtained digital image is

to be sent.

4. A method according to claim 1, wherein said identification data

is at least source data indicative of a source of said obtained digital image.

5. A method according to claim 1, wherein said identification data

is at least a unique consumer/retailer identifier.

6. A method according to claim 1, wherein said identification data

is at least one of a product/service data, a source data and a unique

consumer/retailer identifier.

7. A method according to claim 1, wherein said identification data

is magnetic data written on film.

8. A method according to claim 1, wherein said digital output device is at least one of a thermal printer, an inkjet printer, a laser printer or a digital silver halide printer.

9. A method according to claim 1, comprising the further steps of:

sending prestored digital images to said central processing unit; and

combining selected ones of said obtained digital images and said prestored digital images based on said identification data.

10. A method according to claim 1, wherein said original order comprises digital image data obtained from scanned film.

11. A method according to claim 1, wherein said original order comprises digital image data obtained from physical media

12. A method according to claim 1, wherein said original order comprises digital image data electronically sent to said photofinishing lab.

13. A method according to claim 1, wherein said original order comprises digital image data obtained from a scanned print.

14. A method according to claim 1, wherein said original order is generated from a consumer/retailer.

15. A photofinishing lab for producing digital image products, the photofinishing lab comprising:

a plurality of image obtaining devices for obtaining digital images, each of said digital images being related to multiple customer orders;

a plurality of image output devices for providing digital image products based on said obtained digital images, each of the obtained digital images being associated with identification data;

a central processing unit which receives said obtained digital images and the associated identification data, said central processing unit being adapted to analyze the obtained digital images and compare each of said obtained digital images with reference image data representative of an optimum image, said central processing unit being further adapted to create batches of digital images from the multiple customer orders, the digital images in each batch having similar identification data such that a batch of digital images may include digital images from different customer orders, said central processing unit being further adapted to determine an output sequence for each of said obtained digital images to said image output devices based on at least the associated identification data; and

a finishing arrangement which is adapted to combine the digital image products from said image output devices with a related original order from said original orders using the associated identification data.

16. A photofinishing lab according to claim 15, wherein said identification data is product/service data indicative of a type of digital image product for the digital output image, such that the central processing unit modifies the obtained digital images in accordance with the product/service data and the output device to which the obtained digital image is to be sent.

17. A photofinishing lab according to claim 15, wherein said identification data is at least source data indicative of a source of said obtained digital image.

18. A photofinishing lab according to claim 15, wherein said identification data is at least a unique consumer/retailer identifier.

19. A photofinishing lab according to claim 15, wherein said identification data is at least one of a product /service data, a source data and a unique consumer/retailer identifier.

20. A photofinishing lab according to claim 15, wherein said identification data is magnetic data written on film.

21. A photofinishing lab according to claim 15, further comprising a second image data input source which comprises prestored digital images, said central processing unit being adapted to receive said prestored digital images and combine selected ones of said prestored digital images and said obtained digital images based on said identification data.

22. A photofinishing lab according to claim 15, wherein said original orders comprise digital image data obtained from scanned film.

23. A photofinishing lab according to claim 15, wherein said original orders comprise digital image data obtained from physical media.

24. A photofinishing lab according to claim 15, wherein said original orders comprise digital image data electronically sent to said photofinishing lab.

25. A photofinishing lab according to claim 15, wherein said original orders comprise digital image data obtained from a scanned print.

26. A photofinishing lab according to claim 15, wherein said digital output device is at least one of a thermal printer, an inkjet printer, a laser printer, or a digital silver halide printer.

27. A photofinishing lab according to claim 15, wherein said central processing unit is further adapted to manipulate said analyzed obtained digital images based on said reference digital image data.

28. A photofinishing lab according to claim 15, wherein said original order is generated from a consumer/retailer.

29. A photofininishing method for managing workflow in a photofinishing lab, the method comprising the steps of:

receiving images at the photofinishing lab, each of said images being related to multiple customer orders;

associating each image with identification data;

sending each image and its associated identification data to a processing unit, the processing unit analyzing said image with reference to image data representative of an optimum image and creating batches of digital images from said multiple customer orders, the images in each batch having similar identification data, such that a batch of images may include images from different customer orders, said processing unit further determining an output sequence of each of said images to output devices based on at least the associated identification data;

providing an image product based on the image at an output device of said output devices which is appropriate for the image product; and

combining the image product from the output device with a related

original order from said original orders using the associated identification data.

30. A method according to claim 29, wherein the output device is

at least one of an optical printer, a thermal printer, an inkjet printer, a laser printer

or a digital silver halide printer.

31. A method according to claim 29, comprising the further step of

manipulating said analyzed obtained image based on said reference image data.

32. A method according to claim 29, wherein said original order is

generated from a consumer/retailer.

33. A computer program product comprising:

a computer readable storage medium having a computer program

thereon which when loaded into a computer causes the computer to manage

workflow in a photofinishing lab by performing the following steps:

associating images received at the photofinishing lab with

identification data, each of the images being related to multiple customer orders;

sending each image and its associated identification data to a

processing unit, the processing unit creating batches of digital images from said

multiple customer orders, the images in each batch having similar identification

data, such that a batch of images may include images from different customer

orders, said processing unit further determining an output sequence of each of said images to output devices based on at least the associated identification data;

providing an image product based on the image at an output device of said output devices which is appropriate for the image product; and

combining the image product from the output device with a related original order from said original orders using the associated identification data;

wherein said identification data is product/service data indicative of a type of image product for the image, such that the images are modified in accordance with the product/service data and the output device to which the image is to be sent.

34. A computer program product according to claim 33, wherein said identification data is product/service data indicative of a type of image product for the image, such that the images are modified in accordance with the product/service data and the output device to which the image is to be sent.

38. A digital photofinishing arrangement comprising:

a plurality of output devices, each of said output devices being adapted to produce a different output image product;

a plurality of image obtaining devices for obtaining images from multiple customer orders, at least one of said image obtaining devices being adapted to convert non-digital images of the obtained images into a digital format so as to place all of the obtained images in a common digital format; and

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a processing unit which is adapted to create a virtual batch of said obtained images for forwarding to said plurality of output devices, said virtual batch including images from different customer orders and being created based on at least a time necessary to complete the image products, so as to compile a sequence of completion of said output image products that permits efficient use of said output devices;

wherein said processing unit is further adapted to analyze each of said obtained images for image correction based on at least reference image data.

40. A photofinishing method comprising the steps of:

receiving images from multiple customer orders at a photofinishing lab;

converting non-digital images of said received images into a digital format, such that all of the images received at said photofinishing lab are in a common digital format;

creating a virtual batch of said received images based on at least a time necessary to complete output image products at any of a plurality of output devices, said virtual batch comprising images from different customer orders, each of said output image products being related to an associated received image from said received images, such that a sequence of completion of the output image products that permits efficient use of the output devices is compiled; and

comparing said received images to reference image data representative of an optimum image and manipulating said received images based on said reference image data.